

GenCore version 4.5
Copyright (c) 1993 - 2000 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: January 7, 2002, 15:40:13 ; Search time 154.28 Seconds

(without alignments)
22.086 Million cell updates/sec

Title: US-08-569-749-7

Sequence: 1 LARAGFYRIGCDRVACFAC.....WEPKDAMSEHRHFWCPF 46

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 522463 seqs, 74073290 residues

Total number of hits satisfying chosen parameters: 522463

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :
1: A.Geneseq.1101.*
2: /SID2/gcgdata/geneseq/geneseq/AA1980.DAT.*
3: /SID2/gcgdata/geneseq/geneseq/AA1981.DAT.*
4: /SID2/gcgdata/geneseq/geneseq/AA1982.DAT.*
5: /SID2/gcgdata/geneseq/geneseq/AA1983.DAT.*
6: /SID2/gcgdata/geneseq/geneseq/AA1984.DAT.*
7: /SID2/gcgdata/geneseq/geneseq/AA1985.DAT.*
8: /SID2/gcgdata/geneseq/geneseq/AA1986.DAT.*
9: /SID2/gcgdata/geneseq/geneseq/AA1987.DAT.*
10: /SID2/gcgdata/geneseq/geneseq/AA1988.DAT.*
11: /SID2/gcgdata/geneseq/geneseq/AA1989.DAT.*
12: /SID2/gcgdata/geneseq/geneseq/AA1990.DAT.*
13: /SID2/gcgdata/geneseq/geneseq/AA1991.DAT.*
14: /SID2/gcgdata/geneseq/geneseq/AA1992.DAT.*
15: /SID2/gcgdata/geneseq/geneseq/AA1993.DAT.*
16: /SID2/gcgdata/geneseq/geneseq/AA1994.DAT.*
17: /SID2/gcgdata/geneseq/geneseq/AA1995.DAT.*
18: /SID2/gcgdata/geneseq/geneseq/AA1996.DAT.*
19: /SID2/gcgdata/geneseq/geneseq/AA1997.DAT.*
20: /SID2/gcgdata/geneseq/geneseq/AA1998.DAT.*
21: /SID2/gcgdata/geneseq/geneseq/AA2000.DAT.*
22: /SID2/gcgdata/geneseq/geneseq/AA2001.DAT.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	269	100.0	46	AAW13549	Human c-IAP1 repa
2	269	100.0	438	AAW04583	Human inhibitor of
3	269	100.0	618	AAW19746	Human inhibitor of
4	269	100.0	618	AAW19583	Human apoptosis in
5	269	100.0	618	AAW13545	Human c-IAP1. Hom
6	269	100.0	618	AAW69296	Human H1AP-2 prote
7	269	100.0	618	AAW33998	Human cellular inh
8	264	98.1	612	AAW13555	Murine c-IAP. Mus
9	264	98.1	612	AAW63293	Murine H1AP-2 prot
10	257	97.5	306	AAW02923	Angiotensin conver
11	255	94.8	591	AAW19586	Mouse apoptosis in

12	251	93.3	604	18	AAW19582	Human apoptosis in
13	251	93.3	604	19	AAW69295	Human H1AP-1 prote
14	248	92.2	46	18	AAW13550	Human c-IAP2 repa
15	248	92.2	604	18	AAW19747	Human inhibitor of
16	248	92.2	604	18	AAW13546	Human c-IAP2. Hom
17	248	92.2	604	20	AAW152703	Human cellular inh
18	248	92.2	604	20	AAW33997	Human cellular inh
19	248	92.2	1141	22	AAW50694	Human AP12-MIT chl
20	241	89.6	600	19	AAW19585	Murine H1AP-1 prot
21	241	89.6	602	18	AAW19585	Mouse apoptosis in
22	192	71.4	497	18	AAW19581	Human apoptosis in
23	192	71.4	497	19	AAW69294	Human XIAP protein
24	192	71.4	497	21	AAW99985	Human X-linked inh
25	192	71.4	497	21	AAW59451	Human XIAP protein
26	187	69.5	496	18	AAW19745	Mouse inhibitor of
27	187	69.5	496	18	AAW19584	Mouse apoptosis in
28	187	69.5	496	19	AAW69297	Murine XIAP protei
29	155	57.6	236	21	AAW81440	Human IAP-like pro
30	155	57.6	236	22	AAW00365	Chimpanzee IAP-lik
31	155	57.6	236	22	AAW00366	Gorilla IAP-like p
32	154	57.2	236	22	AAW00367	Neutrol apoptosis
33	149	55.4	1232	17	AAW98217	Conductropic hormo
34	149	55.4	1295	20	AAW14080	Human apoptosis in
35	149	55.4	1295	20	AAW09540	Neutrol apoptosis
36	149	55.4	1403	18	AAW20032	Neutrol apoptosis
37	149	55.4	1403	18	AAW20033	Conductropic hormo
38	149	55.4	1403	20	AAW14079	Human apoptosis in
39	149	55.4	1403	20	AAW09539	Human XIAP protein
40	149	55.4	1403	21	AAW88053	Human apoptosis in
41	140	52.0	498	18	AAW19748	Drosophila inhibit
42	133.5	49.6	4829	22	AAW97833	Human apoptosis in
43	133	49.4	48	18	AAW13551	Human c-IAP1 repa
44	132	49.1	438	22	AAW48189	Drosophila mutant
45	131	48.7	438	22	AAW48191	Drosophila mutant

ALIGNMENTS

RESULT 1	AAW13549	standard; Protein; 46 AA.
ID	AAW13549	
AC	AAW13549	
XX	22-JUL-1997	(first entry)
DT	XX	
XX	XX	Human c-IAP1 repeat 2.
DE	XX	
KW	IAP: inhibitor; apoptosis; RING finger domain; restinosis;	
KM	myocardial infarction; nephritis; HIV.	
OS	Homo sapiens.	
XX	XX	
PN	W09706182-A1.	
XX	PD	20-FEB-1997.
XX	PF	06-AUG-1996; 96WO-US12860.
XX	PR	08-DEC-1995; 95US-0569749.
XX	PR	08-AUG-1995; 95US-0512946.
XX	XX	(TULIA-) TULIRIK INC.
XX	XX	Goeddel DV, Rothe M;
XX	XX	WPI: 1997-154209/14.
PT	XX	Nucleic acids encoding cellular inhibitor of apoptosis proteins
PT	XX	useful for apoptosis regulation in cells to reduce or increase
PT	XX	apoptosis and for pharmacological screening
XX	XX	

PS Claim 3: Page 24: 35bp; English.

CC The human cellular inhibitor of apoptosis proteins (c-IAP1/2 -
CC AAI61590/T61591) comprise a series of defined structural domain
CC repeats and/or a RING finger domain; in particular, at least two of
CC a first domain repeat (AAW13547 or AAW13548), a second domain repeat
CC (AAW13549 or AAW13550), and a third domain repeat (AAW13551 or AAW13552)
CC and/or a RING finger domain (AAW13553 or AAW13554), or a consensus
CC sequences derived from these human genes.

CC The nucleic acid is used for recombinant prodn. of human cellular
CC inhibitor of apoptosis protein which modulates apoptosis
CC regulation. The nucleic acids are useful in therapies where
CC increased cell-specific apoptosis is desired, e.g. in restinosis,
CC inflammatory disease states, myocardial infarction, glomerular
CC nephritis, transplant rejection and infectious diseases, e.g. HIV.
CC They can also be used in conditions requiring a reduction in
CC apoptosis.

XX Sequence 46 AA:

Query Match 100.0%; Score 269; DB 18; Length 46;

Best Local Similarity 100.0%; Pred. No. 6, 3e-27;

Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 LARAGFYITPGDRVACFACGKLSNMEKPDAMSEHRHFPNCP 46
Db 1 laragfyy19pgdrvacfagcgklsnwekddamsehrhfpncpf 46

RESULT 2

AAW04583

ID AAW04583 standard; Protein: 438 AA.

XX AAW04583:

AC AAW04583:

DT 07-FEB-1997 (first entry)

XX Human inhibitor of apoptosis gene 1.

XX Inhibitor of apoptosis 1; hIAP-1; degenerative disease;

XX Rheumatoid arthritis; septic shock; antiviral; trauma; stroke;

XX cell death; oncogenesis; cancer; diagnosis; therapy.

XX Homo sapiens.

OS WO9635703-A1.

PN 14-NOV-1996.

PD 11-MAY-1995; 95WO-US05922.

PF 11-MAY-1995; 95WO-US05922.

PR 11-MAY-1995; 95WO-US05922.

XX (HUMA-) HUMAN GENOME SCI INC.

PA He MW, Hudson PL, Rosen CA.

PI MPI: 1996-518608/51.

DR N-PSDB: AAT13709.

XX Polynucleotide encoding human inhibitor of apoptosis gene 1 - useful

PT for treating degenerative diseases, as antiviral defence mechanism

PS Claim 1: Page 40-41: 53bp; English.

XX Human inhibitor of apoptosis 1 (hIAP-1) (AAW04583) is a protein
XX useful for treating degenerative diseases, rheumatoid arthritis,
XX septic shock, as an antiviral defence mechanism, and for
XX preventing cell death during strokes or trauma. Its amino acid
XX sequence was deduced from a cDNA clone (AAW13709) that can be obtd.
XX from human Jurkat cell lines or human osteoclastoma stromal cell

CC lines. Recombinant hIAP-1 can be produced in prokaryotic or
CC eukaryotic host cells, or expressed in vivo. It can also be used
CC to screen for modulators of hIAP-1 activity.

XX Sequence 438 AA:

Query Match 100.0%; Score 269; DB 17; Length 438;

Best Local Similarity 100.0%; Pred. No. 6, 7e-26;

Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 LARAGFYITPGDRVACFACGKLSNMEKPDAMSEHRHFPNCP 46
Db 24 laragfyy19pgdrvacfagcgklsnwekddamsehrhfpncpf 69

RESULT 3

AAW19746

ID AAW19746 standard; Protein: 618 AA.

XX AAW19746:

DT 16-SEP-1997 (first entry)

XX Human inhibitor of apoptosis protein homologue MIB.

XX Inhibitor of apoptosis protein; IAP; mammalian IAP homologue; MIB;

XX degenerative disease; infectious disease; autoimmune disease;

XX cancer; therapy; diagnosis.

XX Homo sapiens.

XX Key

XX Region

XX Region

XX Region

XX Region

XX Region

XX Region

XX Region

XX Region

XX Region

XX Region

XX Region

XX Region

XX Region

XX Region

XX Region

XX Region

XX Region

XX Region

XX Region

XX Region

XX Region

XX Region

XX Mammalian IAP homologue B (MIB) (AAW19746) is a human homologue of
XX baculovirus inhibitor of apoptosis protein (IAP). Its amino acid
XX sequence was deduced from a cDNA clone (see also AAT72711) isolated
XX from a human foetal liver cDNA library using primers based on
XX human EST sequences that resembled the BIR repeats of Orf1a
XX pseudosynsuta polyhedrosis virus IAP. IAP homologues (see also
XX AAW19745 and AAW19747-52) and their derivatives and chemical analogues
XX can be used in methods for modulating apoptosis in animal cells,
XX specifically for treatment, by inhibition, of degenerative and
XX infectious disease or, by promotion, of cancer and autoimmune

Best Local Similarity 100.0%; Pred. No. 9.6e-26;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 LARAGFYITGPDVACFACGKLSNMEPKDAMSEHRHFPNCPF 46
|||||
DB 204 laragfyytgpdrvacfagcgklsnwepkdamsehrhfpncpf 249

RESULT 6

AAW69296
ID AAW69296 standard; Protein: 618 AA.

AC AAW69296;

DT 13-NOV-1998 (first entry)

DE Human H1AP-2 protein.

KM Inhibitor of apoptosis protein; apoptosis enhancer; NAIP polypeptide;
KW proliferative disease; IAP; therapy; cancer; human; H1AP-2 protein.

OS Homo sapiens.

PN MO9835693-A2.

PD 20-AUG-1998.

PF 13-FEB-1998; 98MO-IB00781.

PR 13-FEB-1997; 97US-0800929.

PA (UYOT-) UNIV OTTAWA.

PI Baird S, Korneluk R, Liston P, Mackenzie AE, Pratt C;
PI Tsang B;

DR WPI: 1998-467164/40.

N-PSDB: AAV55040.

PT Inducing apoptosis in proliferative mammalian cells with inhibitor
PT of IAP or NAIP polypeptide; also methods for prognosis based on
PT presence of IAP and NAIP, specifically applied to cancers involving
PT p53 mutations

PS Disclosure; Fig 3: 147pp; English.

XX This sequence is the human H1AP-2 protein, which is a inhibitor of
XX apoptosis protein (IAP), and can be used in the method of the invention.

CC The method is for enhancing apoptosis in cells from a mammal with
CC proliferative disease by treatment with a compound that inhibits
CC biological activity of an IAP or NAIP polypeptide. The inhibitory
CC compounds are used to treat proliferative diseases, specially cancers of
CC ovary, breast, pancreas, lymph nodes, skin, blood, lung, brain, kidney,
CC liver nasopharynx, thyroid, central nervous system, prostate, colon,
CC rectum, cervix or endometrium, particularly to increase their sensitivity
CC to chemotherapeutic agents. High levels of the IAP or NAIP proteins are
CC detected in many cancers and are associated with poor prognosis,
CC resistance to chemotherapeutic agents and mutations in p53 (it is
CC suggested that wild-type p53 suppresses transcription of the IAP or NAIP
CC genes). Transgenic animals are used for testing the effects of antisense
CC oligonucleotides and for screening for the inhibitors.

XX Sequence 618 AA;

Query Match 100.0%; Score 269; DB 19; Length 618;
Best Local Similarity 100.0%; Pred. No. 9.6e-26;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 LARAGFYITGPDVACFACGKLSNMEPKDAMSEHRHFPNCPF 46
|||||
DB 204 laragfyytgpdrvacfagcgklsnwepkdamsehrhfpncpf 249

RESULT 7

AAV33998
ID AAV33998 standard; Protein: 618 AA.

AC AAV33998;

DT 26-NOV-1999 (first entry)

DE Human cellular inhibitor of apoptosis-1 sequence.

KM Cellular Inhibitor of Apoptosis-1; antisense; diagnostic; therapeutic;
KW c-IAP-1; prophylaxis; infection; inflammation; tumor formation.

OS Homo sapiens.

PN US958772-A.

PD 28-SEP-1999.

PF 03-DEC-1998; 98US-0205204.

PR 03-DEC-1998; 98US-0205204.

PA (ISIS-) ISIS PHARM INC.

PI Bennett CF, Cowseert LM, Ackermann EJ;

DR WPI: 1999-561047/47.

N-PSDB: AAV22143.

PT Antisense compounds complementary to Cellular Inhibitor of Apoptosis-1
PT useful for e.g. diagnostics, therapeutics, and as research reagents -

PS Example 13; Columns 41-46; 32pp; English.

CC The invention provides antisense compounds of 8-30 nucleotides that
CC inhibit the expression of human Cellular Inhibitor of Apoptosis-1
CC (c-IAP-1). The antisense compounds may be used for diagnostics,
CC therapeutics (for modulating the expression of c-IAP-1), prophylaxis
CC (e.g. to prevent or delay infection, inflammation, or tumor formation),
CC as research reagents (e.g. to distinguish between members of a biological
CC pathway) and in kits. The present sequence represents the human cellular
CC inhibitor of apoptosis-1.

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

XX

```

XX PD 20-FEB-1997.
XX PF 06-AUG-1996: 96WO-US12860.
XX PR 08-DEC-1995: 95US-0569749.
XX PR 08-AUG-1995: 95US-0512946.
XX PA (TULA-) TULARIK INC.
XX PI Goeddel DV, Rothe M;
XX DR WPI: 1997-154209/14.
XX DR N-PSDB: AAT61592.
XX PT Nucleic acids encoding cellular inhibitor of apoptosis proteins -
XX PT useful for apoptosis regulation in cells to reduce or increase
XX PT apoptosis and for pharmacological screening
XX PS Disclosure: Page 28-29; 35pp; English.
XX
XX CC The human cellular inhibitor of apoptosis proteins (c-IAP1/2 -
XX CC AAT61590/AT61591) comprise a series of defined structural domain
XX CC repeats and/or a RING finger domain; in particular, at least two of
XX CC a first domain repeat (AAW13547 or AAW13548), a second domain repeat
XX CC (AAW13549 or AAW13550), and a third domain repeat (AAW13551 or AAW13552)
XX CC and/or a RING finger domain (AAW13553 or AAW13554), or a consensus
XX CC sequences derived from these human genes
XX CC The nucleic acid is used for recombinant prodn. of human cellular
XX CC inhibitor of apoptosis protein which modulates apoptosis
XX CC regulation. The nucleic acids are useful in therapies where
XX CC increased cell-specific apoptosis is desired, e.g. in restenosis,
XX CC inflammatory disease states, myocardial infarction, glomerular
XX CC nephritis, transplant rejection and infectious diseases, e.g. HIV.
XX CC They can also be used in conditions requiring a reduction in
XX CC apoptosis.
XX
XX SQ Sequence 612 AA:
XX
XX Query Match 98.1%; Score 264; DB 18; Length 612;
XX Best Local Similarity 97.8%; Pred. No. 4.1e-25;
XX Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
XX
XX OY 1 LARAGFYITGPDRAVACFACGKLSNMEPKDAMSEHRRHFPNCPF 46
XX DB 197 IARAGFYITGPDRAVACFACGKLSNMEPKDAMSEHRRHFPNCPF 242
XX
XX RESULT 9
XX ID AAW69299 standard; Protein: 612 AA.
XX AC AAW69299;
XX XX
XX DT 13-NOV-1998 (first entry)
XX XX
XX DE Murine IIRAP-2 protein.
XX
XX KW Inhibitor of apoptosis protein; apoptosis enhancer; NAIP polypeptide;
XX KW proliferative disease; IAP; therapy; cancer; mouse; IIRAP-2 protein.
XX
XX OS Mus sp.
XX
XX PN WO9835693-AZ.
XX
XX PD 20-AUG-1998.
XX
XX PF 13-FEB-1998: 98WO-IB00781.
XX
XX PR 13-FEB-1997: 97US-0800929.
XX
XX PA (UYOT-) UNTV OTTAMA.

```

```

XX XX Baird S, Korneluk R, Liston P, Mackenzie AE, Pratt C;
XX PI Tsang B;
XX XX
XX DR WPI: 1998-467164/40.
XX DR N-PSDB: AAW5043.
XX
XX PT Inducing apoptosis in proliferative mammalian cells with inhibitor
XX PT of IAP or NAIP polypeptide - also methods for prognosis based on
XX PT presence of IAP and NAIP, specifically applied to cancers involving
XX PT p53 mutations
XX
XX PS Disclosure: Fig 6; 147pp; English.
XX
XX CC This sequence is the murine IIRAP-2 protein, which is a inhibitor of
XX CC apoptosis protein (IAP), and can be used in the method of the invention.
XX CC The method is for enhancing apoptosis in cells from a mammal with
XX CC proliferative disease by treatment with a compound that inhibits
XX CC biological activity of an IAP or NAIP polypeptide. The inhibitory
XX CC compounds are used to treat proliferative diseases, specially cancers of
XX CC ovary, breast, pancreas, lymph nodes, skin, blood, lung, brain, kidney,
XX CC liver nasopharynx, thyroid, central nervous system, prostate, colon,
XX CC rectum, cervix or endometrium, particularly to increase their sensitivity
XX CC to chemotherapeutic agents. High levels of the IAP or NAIP proteins are
XX CC detected in many cancers and are associated with poor prognosis,
XX CC resistance to chemotherapeutic agents and mutations in p53 (it is
XX CC suggested that wild-type p53 suppresses transcription of the IAP or NAIP
XX CC genes). Transgenic animals are used for testing the effects of antisense
XX CC oligonucleotides and for screening for the inhibitors.
XX
XX SQ Sequence 612 AA:
XX
XX Query Match 98.1%; Score 264; DB 19; Length 612;
XX Best Local Similarity 97.8%; Pred. No. 4.1e-25;
XX Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
XX
XX OY 1 LARAGFYITGPDRAVACFACGKLSNMEPKDAMSEHRRHFPNCPF 46
XX DB 197 IARAGFYITGPDRAVACFACGKLSNMEPKDAMSEHRRHFPNCPF 242
XX
XX RESULT 10
XX ID AAU02925 standard; Protein: 306 AA.
XX AC AAU02925;
XX XX
XX DT 12-SEP-2001 (first entry)
XX XX
XX DE Angiotensin converting enzyme (ACEV) splice variant protein #25.
XX
XX KW Angiotensin converting enzyme (ACEV) splice variant protein #25.
XX KW granuloctye colony stimulating factor receptor; glucagon; hypercrotphy;
XX KW platelet-derived endothelial cell growth factor; cardiovascular disease;
XX KW cellular tumour antigen P53; cyclin-dependent kinase inhibitor 1C;
XX KW vasodilative intestinal polypeptide receptor 2; arteriosclerosis; cancer;
XX KW myocardial infarction; coronary arterial thrombosis; renal disease;
XX KW diabetic nephropathy; muscular disease; immune disorder; sarcolosis;
XX KW multiple sclerosis; immune complex nephritis; deep vein thrombosis;
XX KW nonarcoliotic pulmonary granulomatous disease; endothelial abnormality;
XX KW vascular disorder; asbestosis.
XX
XX OS Homo sapiens.
XX
XX PN WO200136632-A2.
XX
XX PD 25-MAY-2001.
XX
XX PF 17-NOV-2000: 2000WO-IL00766.
XX
XX PR 17-NOV-1999: 99IL-0132978.
XX PR 10-DEC-1999: 99IL-0133455.

```


PN W09706255-A2.
 XX 20-FEB-1997.
 XX 05-AUG-1996; 96WO-1B01022.
 XX 22-DEC-1995; 95US-0576956.
 XX 04-AUG-1995; 95US-0511485.
 XX (UYOT-) UNIV OTTAWA.
 PA Baird S, Korneluk RG, Liston P, Mackenzie AE;
 PI WPI; 1997-154262/14.
 DR N-PSDB; AAT70837.
 XX Nucleic acid encoding an inhibitor of apoptosis polypeptide - used
 PT to inhibit apoptosis in e.g. HIV or AIDS patients, and for detection
 PS of susceptibility to apoptotic disease
 XX Claim 27; Page 72-74; 219pp; English.
 CC Human XIAP, HIAP-1 and HIAP-2 and murine M-XIAP, M-HIAP-1 and
 CC M-HIAP-2 (AA119581-86) are a new class of mammalian proteins that
 CC are inhibitors of apoptosis (IAP) and which are characterized by
 CC the presence of a ring zinc finger domain (see also AA119587) and at
 CC least one BIR (baculovirus IAP repeat) domain (see also AA119588).
 CC The HIAP amino acid sequences were deduced from cDNA clones (AAT70837
 CC and AAT70838) from a human liver library. IAP polypeptides can be
 CC expressed in host cells (in vitro or in vivo) and used in methods
 CC for treating diseases and disorders involving apoptosis, esp. in a
 CC human diagnosed as HIV-positive or as having AIDS, a
 CC neurodegenerative disease, a myelodysplastic syndrome or an
 CC ischemic injury, selected from myocardial infarction, stroke,
 CC reperfusion injury, or a toxin-induced liver disease.
 XX Sequence 604 AA;
 SQ
 Query Match 93.3%; Score 251; DB 18; Length 604;
 Best Local Similarity 93.5%; Pred. No. 1,8e-23;
 Matches 43; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
 OY 1 LARAGFYTGPDVACFACGKLSNWEKDDANSEIRRHFPNCPF 46
 DB 189 Iatagifytgpdrvacfacgklsnwekdanseshlthpckpf 234
 RESULT 13
 AAM69295
 ID AAM69295 standard; Protein; 604 AA.
 XX AAM69295;
 AC AAM69295;
 DT 13-NOV-1998 (first entry)
 DE Human HIAP-1 protein.
 KW Inhibitor of apoptosis protein; apoptosis enhancer; NAIP polypeptide;
 KM proliferative disease; IAP; therapy; cancer; human; HIAP-1 protein.
 OS Homo sapiens.
 XX MO9835693-A2.
 PN 20-AUG-1998.
 PD 13-FEB-1998; 98WO-1B00781.
 PF 13-FEB-1997; 97US-0800929.
 PR 13-FEB-1997; 97US-0800929.
 XX (UYOT-) UNIV OTTAWA.
 PA
 XX

PI Baird S, Korneluk R, Liston P, Mackenzie AE, Pratt C;
 PT Tsang B;
 XX WPI; 1998-467164/40.
 DR N-PSDB; AAV55039.
 XX Inducing apoptosis in proliferative mammalian cells with inhibitor
 PT of IAP or NAIP polypeptide also methods for prognosis based on
 PT presence of IAP and NAIP, specifically applied to cancers involving
 PT p53 mutations
 XX Disclosure; Fig 2; 147pp; English.
 PS
 XX This sequence is the human HIAP-1 protein, which is a inhibitor of
 CC apoptosis protein (IAP), and can be used in the method of the invention.
 CC The method is for enhancing apoptosis in cells from mammal with
 CC proliferative disease by treatment with a compound that inhibits
 CC biological activity of an IAP or NAIP polypeptide. The inhibitory
 CC compounds are used to treat proliferative diseases, specially cancers of
 CC ovary, breast, pancreas, lymph nodes, skin, blood, prostate, kidney,
 CC liver, nasopharynx, thyroid, central nervous system, increase their sensitivity
 CC to chemotherapeutic agents, high levels of the IAP or NAIP proteins are
 CC detected in many cancers and are associated with poor prognosis.
 CC resistance to chemotherapeutic agents and mutations in p53 (it is
 CC suggested that wild-type p53 suppresses transcription of the IAP or NAIP
 CC genes). transgenic animals are used for testing the effects of antisense
 CC oligonucleotides and for screening for the inhibitors.
 XX Sequence 604 AA;
 SQ
 Query Match 93.3%; Score 251; DB 19; Length 604;
 Best Local Similarity 93.5%; Pred. No. 1,8e-23;
 Matches 43; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
 OY 1 LARAGFYTGPDVACFACGKLSNWEKDDANSEIRRHFPNCPF 46
 DB 189 Iatagifytgpdrvacfacgklsnwekdanseshlthpckpf 234
 RESULT 14
 ID AAM13550 standard; Protein; 46 AA.
 XX AAM13550;
 AC AAM13550;
 DT 22-JUL-1997 (first entry)
 DE Human c-IAP2 repeat 2.
 KW IAP; inhibitor; apoptosis; RING finger domain; restinosis;
 KM myocardial infarction; nephritis; HIV.
 OS Homo sapiens.
 XX MO9706182-A1.
 PN 20-FEB-1997.
 PD 06-AUG-1996; 96WO-0512860.
 PF 08-DEC-1995; 95US-0569749.
 PR 08-AUG-1995; 95US-0512946.
 XX (TDLA-) TDLARIK INC.
 PA Goeddel DV, Rothe M;
 XX WPI; 1997-154209/14.
 DR Nucleic acids encoding cellular inhibitor of apoptosis proteins -
 PT useful for apoptosis regulation in cells to reduce or increase

PT apoptosis and for pharmacological screening
 XX Claim 3; Page 24; 35pp; English.
 PS
 CC The human cellular inhibitor of apoptosis proteins (c-IAP1/2 -
 CC AAT1590/T61591) comprise a series of defined structural domain
 CC repeats and/or a RING finger domain; in particular, at least two of
 CC a first domain repeat (AAW13547 or AAW13548), a second domain repeat
 CC (AAW13549 or AAW13550), and a third domain repeat (AAW13551 or AAW13552)
 CC and/or a RING finger domain (AAW13553 or AAW13554), or a consensus
 CC sequences derived from these human genes.
 CC The nucleic acid is used for recombinant prodn. of human cellular
 CC inhibitor of apoptosis protein which modulates apoptosis
 CC regulation. The nucleic acids are useful in therapies where
 CC increased cell-specific apoptosis is desired, e.g. in restinosis,
 CC inflammatory disease states, myocardial infarction, glomerular
 CC nephritis, transplant rejection and infectious diseases, e.g. HIV.
 CC They can also be used in conditions requiring a reduction in
 CC apoptosis.
 CC
 XX
 SQ Sequence 46 AA:
 Query Match 92.2%; Score 248; DB 18; Length 46;
 Best Local Similarity 91.3%; Freq. No. 2, 8e-24;
 Matches 42; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
 Oy 1 LARAGFYITGRDVRACAGCGKLSNWEKXDMSERHRFPNCF 46
 1 LAKAGFYIYGPGRVACTACGKLSNWEKXDMSERHRFPNCF 46
 Db 1 LAKAGFYIYGPGRVACTACGKLSNWEKXDMSERHRFPNCF 46

RESULT 15
 AAW19747
 ID AAW19747 standard; Protein; 604 AA.
 XX
 AC AAW19747;
 XX
 DT 16-SEP-1997 (first entry)
 XX
 DE Human inhibitor of apoptosis protein homologue MHC.
 XX
 KM Inhibitor of apoptosis protein; IAP; mammalian IAP homologue; MHC;
 KM degenerative disease; infectious disease; autoimmune disease;
 KM cancer; therapy; diagnosis.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Region 29..97
 FT /Label= BIR
 FT Region 169..236
 FT /Label= BIR
 FT Region 255..323
 FT /Label= BIR
 FT Region 556..593
 FT /Label= RING_finger
 XX
 PN WO9723501-A1.
 XX
 PD 03-JUL-1997.
 XX
 PF 20-DEC-1996; 96WO-AU00827.
 XX
 PR 22-DEC-1995; 95AU-0007275.
 XX
 PA (AMRA-) AMRAD OPERATIONS PTY LTD.
 XX
 PI Vaux DL;
 XX
 DR WPI: 1997-350966/32.
 DR N-PSDB: AAT72712.
 XX

PT Isolated protein homologues of viral inhibitors of apoptosis - used
 PT to modulate apoptosis for treatment of degenerative, infectious or
 PT autoimmune diseases and cancer
 XX
 PS Claim 9; Page 58-62; 136pp; English.
 XX
 CC Mammalian IAP homologue C (MHC) (AAW19747) is a human homologue of
 CC baculovirus inhibitor of apoptosis protein (IAP). Its amino acid
 CC sequence was deduced from a cDNA clone (see also AAT72712) isolated
 CC from a human foetal liver cDNA library using primers based on
 CC human B57 sequences that resembled the BIR repeats of Oryza
 CC pseudotsugata polyhedrosis virus IAP. IAP homologues (see also
 CC AAW19745-46 and AAW19748-52) and their derivatives and chemical
 CC analogues can be used in methods for modulating apoptosis in animal
 CC cells, specifically for treatment, by inhibition, of degenerative
 CC and infectious disease or, by promotion, of cancer and autoimmune
 CC disease.
 CC
 XX
 SQ Sequence 604 AA:
 Query Match 92.2%; Score 248; DB 18; Length 604;
 Best Local Similarity 91.3%; Freq. No. 4, 2e-23;
 Matches 42; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
 Oy 1 LARAGFYITGRDVRACAGCGKLSNWEKXDMSERHRFPNCF 46
 1 LAKAGFYIYGPGRVACTACGKLSNWEKXDMSERHRFPNCF 234
 Db 189 LAKAGFYIYGPGRVACTACGKLSNWEKXDMSERHRFPNCF 234

Search completed: January 7, 2002, 15:40:13
 Job time: 172 sec
